

CLIMATOLOGICAL DATA FOR DECEMBER, 1913.

DISTRICT NO. 12, COLUMBIA VALLEY.

EDWARD A. BEALS, District Editor.

GENERAL SUMMARY.

The month as a whole was favorable for agricultural, transportation, and construction interests. There were no severe cold spells and while the precipitation was deficient it was sufficient to thoroughly wet the soil to a good depth where not frozen. The storms of the last few days, while severe along the coast, did not cause as much damage to shipping as was expected. During the last half of the month trains were delayed for a short period in southern Idaho on account of drifting snow. Stock is doing well on the winter feeding grounds and fall grain is in good condition.

TEMPERATURE.

It was warmer than usual at a few scattered places in Idaho and Oregon and generally over central and northern Washington; elsewhere the temperature was below normal, being decidedly so in the Snake River watershed, along the Columbia River between Oregon and Washington, and in central Oregon and the Willamette Valley.

The mean temperature of the district, as determined from the records of 297 stations, was 30.6° , which was 1.2° below normal. The highest temperature, 72° , was recorded at Cliff, Oreg., on the 7th, and the lowest temperature, -36° , occurred at Snake River, Wyo., on the 29th. The greatest daily range in temperature, 63° , was at Crescent, Oreg. The highest monthly mean, 47.7° , was at Brookings, Oreg., and the lowest, 8.4° , was recorded at Snake River, Wyo.

The following table shows for comparative purposes the mean temperature and departure from normal for the States of Oregon, Washington, and Idaho, and those portions of Montana and Wyoming in District No. 12 for the month of December during the last five years:

Years.	Oregon.		Washington.		Idaho.		Montana.		Wyoming.	
	Mean.	Depart.	Mean.	Depart.	Mean.	Depart.	Mean.	Depart.	Mean.	Depart.
1909.....	30.9	-6.0	29.1	-6.3	20.6	-6.6	20.4	-4.2	10.1	-10.2
1910.....	38.6	+1.4	36.8	+1.7	30.3	+3.4	27.1	+3.3	18.2	-1.1
1911.....	35.1	-0.9	34.1	-0.6	24.8	-2.5	23.7	-2.7	11.3	-6.3
1912.....	35.5	-0.3	35.8	+0.6	26.6	-0.5	27.9	+1.5	14.2	-1.6
1913.....	34.0	-1.7	34.0	-0.1	24.9	-1.8	24.2	-2.0	15.1	-2.0

PRECIPITATION.

While the precipitation in southwestern Idaho and southeastern Oregon was normal or slightly above, in other portions of the district it was much less than the average, particularly so in the Sound country, along the coast and in the Willamette Valley where the rainfall

was from 1 to nearly 15 inches below the December normal.

The snowfall as a rule was not up to the average; in some instances, owing to the mild temperature, the snow melted as it fell, and heavy rains of the last few days caused much of the previous snow to disappear from the lower levels and little remained on the ground at the end of the month, except at the higher altitudes.

The average precipitation for the district, as computed from the records of 389 stations, was 2.27 inches, which was 1.84 inches below the normal. The greatest 24-hour rainfall, 2.04 inches, occurred at Soldier Creek, Idaho, and Williams, Oreg. The greatest monthly amount, 15.72 inches, was recorded at Happy Home, Oreg., and the least monthly amount, 0.04 of an inch, fell at Como and Hamilton, Mont. Snowfall to the depth of 58.7 inches was reported from Pine, Idaho.

The average monthly precipitation with departure from normal for the month of December during the last five years is shown in the following table for the States of Oregon, Washington, and Idaho, and for those portions of Montana and Wyoming lying in district No. 12:

Years.	Oregon.		Washington.		Idaho.		Montana.		Wyoming.	
	Mean.	Depart.	Mean.	Depart.	Mean.	Depart.	Mean.	Depart.	Mean.	Depart.
1909.....	4.13	-2.34	3.26	-1.78	1.92	-0.14	1.04	-0.31	1.15	.....
1910.....	3.59	-2.45	3.97	-0.71	1.61	-0.61	0.89	-0.68	1.90	-0.26
1911.....	4.06	-1.80	3.77	-1.28	1.34	-0.48	0.90	-0.90	1.08	-0.38
1912.....	4.83	-0.37	5.13	-0.28	1.78	-0.47	1.87	-0.26	1.57	-0.66
1913.....	2.96	-2.01	2.23	-2.57	1.65	-0.36	0.47	-1.06	1.01	-0.27

THE RIVERS.

Rivers were below normal throughout the Columbia drainage area. The greatest deficiency was in the Willamette River, while in the Snake and upper Columbia the departures from normal were very slight. The following table summarizes river conditions throughout the district:

Station.	River.	High-est.	Date.	Low-est.	Date.	Mean	Normal.
Albany.....	Willamette.....	8.3	1st..	2.6	22d....	4.0	7.0
Salem.....	do.....	8.3	1st..	2.0	22d....	3.6	7.2
Eugene.....	do.....	6.2	1st..	3.1	*22d....	4.0	5.6
Wilsonville.....	do.....	13.8	1st..	4.6	18th....	6.9	9.2
Oregon City.....	do.....	8.1	1st..	3.0	*17th....	4.8	.....
Portland.....	do.....	7.0	1st..	1.4	*21st....	3.5	5.6
Jefferson.....	Santiam.....	5.8	31st..	2.2	*21st....	3.2	4.0
McMinnville.....	Yamhill.....	16.2	1st..	4.3	11th....	7.2	9.6
Cazadero.....	Clackamas.....	3.6	1st..	1.5	*28th....	2.0	.....
Kamiah.....	Clearwater.....	3.5	1st..	1.0	5th....	2.8	.....
Weiser.....	Snake.....	4.8	1st..	3.6	20th....	4.1	.....
Lewiston.....	do.....	3.0	*1st..	1.8	*21st....	2.2	2.2
Riparia.....	do.....	3.9	1st..	2.5	*21st....	2.9	3.0
Wenatchee.....	Columbia.....	6.2	*1st..	4.6	*29th....	5.3	6.2
Umatilla.....	do.....	3.7	1st..	1.7	30th....	2.7	3.0
The Dalles.....	do.....	4.6	1st..	1.1	*29th....	2.4	4.1
Cascade Locks.....	do.....	2.9	1st..	0.2	*29th....	1.4	3.3
Vancouver.....	do.....	5.4	1st..	0.8	21st....	2.4	4.5

NOTE.—The asterisk indicates that the stage was observed on more than one date.

MISCELLANEOUS PHENOMENA.

The prevailing winds were easterly, which in some sections was unusual for December. The wind movement in general was less than the average, but there were a number of days with high winds along the coast, and these winds, with high tides and heavy seas, caused considerable damage. Maximum velocities above 50 miles an hour were reported as follows: North Head, Wash., 56 on the 6th, 60 on the 13th, 68 on the 27th, and 52 on the

30th, all from the southeast; Tatoosh Island, Wash., 56 south, on the 6th, 62 on the 21st, 56 on the 24th, and 52 on the 28th, the last three from the east.

Some Chinook winds were experienced in the eastern portion of the district on the 30th and 31st.

A thunderstorm occurred in southwestern Oregon on the 21st.

An ice storm or so-called silver thaw was reported from stations in Wasco County, Oreg., during the last three days.

TABLE 1.—*Climatological data for December, 1913. District No. 12, Columbia Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.								Precipitation, in inches.					Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Number of rainy days, 0.01 inch or more.				
<i>Montana.</i>																						
Anaconda.	Deer Lodge.	5,330	11	24.2	-1.7	50	31	2	21	34	0.41	-0.29	0.20	4.8	15	12	4	.....	C. D. Demond.		
Belton.	Flathead.	27,2	10	20	22	32	30	0.18	0.15	5.7	3	6	9	16	ne.	J. L. Galen.						
Butte.	Silver Bow.	5,716	18	23.0	-2.7	44	10	3	21	28	0.12	-0.62	0.08	1.5	2	21	6	4	n.w.	J. R. Wharton.		
Columbia Falls.	Flathead.	3,100	17	24.2	-1.0	43	7	3	22	26	0.68	-1.22	0.32	7.6	6	12	0	19	ne.	J. M. Grist.		
Como.	Ravalli.	3,750	4	25.4	-	46	7	2	21	23	0.04	-	0.03	2.0	2	16	4	11	.....	Hiram Platt.	
Dayton.	Flathead.	2,925	8	28.1	-	46	15	9	27	24	0.37	-	0.33	3.0	2	3	6	22	.....	A. J. Ruechel.	
Deer Lodge.	Powell.	4,509	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.....	H. B. Grant.	
East Anaconda.	Deer Lodge.	5,500	7	24.7	-	44	10	8	22	28	0.37	-	-	2.2	15	12	4	n.w.	C. D. Demond.			
Fortine.	Lincoln.	2,976	7	22.1	-	45	16	-	5	25	32	0.33	-	0.21	4.5	4	6	7	18	Mike Petry.	
Hamilton.	Ravalli.	3,524	10	21.2	-6.5	46	8	-	1	21	29	0.04	-0.51	0.04	0.5	1	27	1	3	s.	Hamilton Chamber of Com.	
Hat Creek.	Powell.	6,000	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.....	M. K. Landreth.	
Hangan.	Missoula.	3,150	1	20.5	-	50	31	-	4	22	36	0.77	-	0.26	9.5	4	10	5	sw.	U. S. Forest Service.		
Heron.	Sanders.	2,261	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.....	E. Knott.	
Kalispell.	Flathead.	3,085	16	24.8	+0.9	44	7	11	24	24	0.49	-1.37	0.24	4.8	7	5	7	19	n.w.	U. S. Weather Bureau.		
Libby.	Lincoln.	2,075	3	26.0	-1.0	44	7	8	21	26	0.76	-1.66	0.41	9.3	4	7	11	13	.....	U. S. Forest Service.	
Missoula.	Missoula.	3,225	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.....	Prof. M. J. Elrod.	
Ovando.	Powell.	4,050	13	18.3	-2.0	44	16	-	9	20	41	0.36	-1.51	0.09	6.0	6	3	27	1	w.	S. B. Muchmore.	
Philipsburg.	Granite.	5,273	9	24.2	-1.8	50	8	-	2	21	39	0.20	-0.23	0.15	2.5	2	22b	3b	sw.	S. G. Bramble.		
Plains.	Sanders.	2,473	14	26.3	-	50	15	12	22	27	0.40	-0.22	0.22	5.0	4	6	9	se.	James M. Self.			
Pleasant Valley.	Flathead.	3,500	5	21.0	-	45	15	0	20	35	0.78	-	0.40	9.5	5	9	2	20	.....	A. D. Stillman.	
Polson.	do.	2,620	25	26.7	-	47	15	-	9	28	18	0.30	-	0.12	8.0	3	4	12	15	F. P. Brown.	
Saint Ignatius.	Missoula.	2,911	7	25.4	-	50	15	-	1	28	27	0.41	-	0.26	6.1	5	4	13	15	U. S. Reclamation Service.	
Saltse.	do.	3,600	8	-	-	-	-	-	-	-	1.14	-2.94	0.52	11.0	6	9	0	22	w.	Martin S. Pixley.		
Stevensville.	Ravalli.	3,500	1	22.4d	-	46	8	1	21	31	0.07	-	0.06	0.7	2	18	4	9	n.	University Orchard Co.		
Thompson Falls.	Sanders.	3,424	1	26.0	-	48	15	6	20	22	0.38	-	0.21	2.2	3	17	5	9	w.	U. S. Forest Service.		
Trot Creek.	do.	3,275	1	32.6	-	57	2	10	19†	43	0.08	-	1.21	17.0	3	11	20	sw.	James Hylen.			
Victor.	Ravalli.	3,537	1	22.0	-	49	7	0	21	35	0.13	-	0.08	1.8	2	20	5	6	sw.	R. W. Fisher.		
Willow Glen St'k Farm.	Deer Lodge.	5,064	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.....	G. E. Luce.	
<i>Wyoming.</i>																						
Afton.	Lincoln.	6,200	9	16.1	-2.5	39	11	-	23	21	0.88	-0.29	0.30	10.0	6	20	4	7	.....	A. V. Call.	
Alta.	do.	6,500	3	17.6	-	49	10	-	15	21†	0.56	-	0.30	6.5	3	15	3	13	sw.	Mrs. Lucy Brown.		
Bechler River.	Yellowstone Park.	6,500	1	-	-	-	-	-	-	-	2.06	-	0.63	25.9	11	13	10	8	sw.	U. S. Army.		
Bedford.	Lincoln.	5,900	13	16.4	-1.5	39	7	-	17	21	1.11	-0.25	0.32	18.9	6	19	3	9	w.	C. G. Helmner.		
Moran.	do.	6,770	1	10.4	-	36	5	-	27	29	0.42	-	0.25	6.2	4	14	8	3	sw.	U. S. Reclamation Service.		
Snake River.	Yellowstone Park.	7,000	7	8.4	-	40	15	-	36	29	1.24	-	0.61	13.0	3	24	2	5	w.	U. S. Army.		
<i>Nevada.</i>																						
Gold Creek.	Elko.	6,600	0	21.1	-	49	9	-	15	21	1.68	-	0.68	8.0	5	10	6	15	n.	Forest Supervisor.		
San Jacinto.	do.	6,000	8	20.0	-	44	31	-	12b	20	41b	0.71	-	0.45	6.3	2	-	-	.....	F. W. McEntire.	
<i>Utah.</i>																						
Standrod.	Box Elder.	-	24.5	-	-	47	31	2*	29	27	0.57	-	0.19	8.9	6	20	5	6	sw.	T. B. Jones.		
<i>Idaho.</i>																						
Albion.	Cassia.	4,850	10	21.5	-6.0	51	31	-	16	21	44	0.60	-	0.20	4.5	5	21	0	10	w.	C. E. Boocock.	
Aimo.	do.	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.....	Wm. D. Caabon.	
American Falls.	Power.	4,341	21	17.7	-7.2	43*	7†	-	16*	21	44*	0.66	-0.62	0.20	11.0	5	20	3	8	e.	Mrs. I. M. Carroll.	
Arrowrock.	Bolse.	3,100	1	27.3	-	47	11	-	1	21	32	3.35	-	1.07	22.0	3	20	1	11	U. S. Reclamation Service.	
Avery.	Shoshone.	2,500	-	27.3*	-	41*	7	8	21	21*	0.47	-	0.23	2.7	5	-	-	-	.....	W. H. Daugs.	
Blackfoot.	Bingham.	4,503	17	21.6	-1.3	43	15	-	11	21†	1.15	-0.27	0.28	8.0	7	16	1	12	s.	E. A. Dowd.		
Blackfoot Dam.	Bannock.	6,200	3	19.0	-	49	6	-	16	21	53	0.96	-	0.32	10.0	6	17	1	13	S. C. Waddell.	
Bogus Creek.	Bolse.	4,200	4	-	-	-	-	-	-	-	2.10	-	0.72	22.0	7	12	12	7	.....	F. F. Ingraham.	
Bonneville.	Ada.	2,739	27	28.9	-3.3	50	31	3	24	33	2.40	+0.68	0.80	19.2	10	20	6	15	.....	U. S. Weather Bureau.	
Boise.	King.	4,000	21	20.0	-	50	6	-	14	21	40	2.18	-	1.50	14.5	6	22	0	9	Arthur W. Stevens.	
Bonners Ferry.	Elmore.	1,850	6	27.5	-	42	1†	10	22	21	0.60	-	0.60	6.0	1	20	0	11	.....	W. H. Heideman.	
Boulder Mine.	Bolse.	4,800	3	-	-	-	-	-	-	-	3.52	-	1.11	39.7	9	18	4	9	e.	Patrick Moriarty.		
Buhl.	Twin Falls.	3,800	6	23.2	-	42	14	-	5	21	28	1.05	-	0.30	8.0	5	14	8	8	e.	E. C. Orr.	
Burke.	Shoshone.	4,082	25	25.2	-	47	11	3	21	30	2.16	-	0.80	6.9	5	15	3	13	.....	E. K. Barnum.	
Caldwell.	Canyon.	2,372	8	26.8	-	50	31	0	21	31	1.71	-	0.43	23.0	8	9	11	11	e.	C. B. Hampson.		
Caldwell Exp. Station.	do.	1	-	-	-	-	-	-	-	-	2.08	-	0.58	15.5	8	8	8	11	.....	Chas. H. Shepherd.	
Cambridge.	Washington.	2,651	17	27.4	+1.1	47	14	10	28	28	2.32	-0.81	0.82	18.6	7	17	1	13	.....	F. L. Featherston.	
Challis.	Custer.	5,300	14	16.6	-	39	7	-	15	24	3.30	-	1.20	6.9	9	13	2	14	.....	Herman Schults.	
Chesterfield.	Bannock.	5,424	16	21.6	+1.8	47	14	-	16	29	52	0.69	-0.47	0.29	11.0*	3	12	11	8	sw.	Mrs. B. B. Caldwell.	
Clarks Fork.	Bonner.	2,084	1	29.9	-	42	14	14	20	26	0.81	-	0.39	1.0	5	8	10	13	se.	Wm. Potter.		
Coeur d'Alene.	Kootenai.	2,157	18	33.1	+1.4	49	15	21	6†	23	-	-	-	3.5	-	-	-	-	.....	J. H. O'Rourke.	
Council.	Adams.	3,059	1	26.8	-	45*	14	4b	24	27†	4.05	-	0.58	15.5	8	8	11	12	.....	F. L. Featherston.	
Cottonwood Creek.	Bolse.	-	-	-	-	-	-	-	-	-	0.62	-	0.38	32.4	8	15	2	14	.....	Herman Schults.	
Culdesac.	Nez Perce.	1,520	4	28.6	-	47	14	9	21†	28	0.62	-	0.45	7.9	4	12	15	15	.....	Mrs. B. B. Caldwell.	
Deary.	Latah.	2,854	1	31.2	-	50	11†	10	21	38	2.13	-	0.45	10.0	9	13	2	14	.....	W. J. Davis.	
Driggs.	Madison.	6,097	6	16.6	-	41	7	-	17	21	39	0.82	-	0.55	8.0	5	19	1	11	W. H. Durrant.	
Emmett.	Canyon.	2,350	13	30.2	-4.0	56	11	0	21	35	1.25	+0.57	0.50	8.0	5	17	6	12	e.	U. S. Forest Service.		
Garnet.	Elmore.	2,575	4	30.2	-	48	1†	8	24†	27	1.25	-	0.50	18.0	13	20	5	11	.....	A. A. Kenison.	
Geneva.	Bear Lake.	6,171	4	-	-	-	-	-	-	-	1.22	-	0.50	8.0	5	17	5	9	e.	F. W. Boehme.		
Gooding.	Elmore.	3,572	3	26.4	-	52	11	-	6	21	36	2.01	-	0.96	13.5	5						

TABLE 1.—Climatological data for December, 1913. District No. 12—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.								Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Sky.	Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.									
<i>Idaho—Continued.</i>																							
Kooskia.	Idaho.	1,261	4	28.54	—	47°	7†	84	21	25°	0.80	—	0.40	8.0	4	7	15	9	sw.	U. S. Forest Service. E. D. Faust.			
Lakeview.	Bonner.	2,250	15	30.5	-0.9	40	1	22	30	12	0.38	—	2.71	0.00	9.0	5	7	15	9		Mrs. Emma L. Brown. Tom Keating.		
Landore.	Adams.	5,300	8	24.4	—	44°	12	0	21	29*	2.95	—	1.43	81.4	10						U. S. Weather Bureau. Solon McCoy.		
Leadore.	Lemhi.	1																			Mrs. Mary Williams. U. S. Forest Service.		
Lewiston.	Naz Perce.	767	19	33.4	-4.1	60	31	15	21	21	0.75	—	0.77	0.48	6.5	6	11	7	18	e.	W. O. Thomas.		
Little Camas.	Elmore.	5,000	3	26.0	—	40	11	—	24	27	4.68	—	4.68	44.0	7	12	6	13	6	e.	A. W. Garrett.		
Loon Creek.	Custer.	6,000	3	15.2	—	40	9	—	24	36	0.56	—	0.45	7.5	5	13	2	16	4	e.	I. S. Carter.		
Mackay.	do.	5,297	5	16.6	—	45	9	8	24	36	0.25	—	0.25	2.0	1	13	14	4	nw.	Mrs. Mary Williams. U. S. Forest Service.			
Malad.	Oneida.	4,700	—																		W. C. Thomas.		
Meridian.	Ada.	2,657	2	26.8	—	48	31	—	1	21†	30	2.53	—	0.95	25.0	8	11	9	11	se.	Jos. McGhee.		
Mesa.	Adams.	3,275	2	26.0	—	49	7†	10	25	30	2.14	—	0.58	22.2	7	5	0	26	n.	James K. Young.			
Middle Fork.	Idaho.	1,397	2	30.2	—	43	5†	14	21	22	0.59	—	0.32	5.7	5	11	7	13	w.	Chas. B. Lemon.			
Milner.	Twin Falls.	4,110	9	22.6*	-4.7	47*	31	—	11	21	41*	1.42	+ 0.85	0.46	13.5	6					Henry R. Snyder.		
Moore.	Blaine.	5,700	12																		P. Mitchell.		
Moscow.	Latah.	2,748	20	30.7	-0.9	46	15	16	21	19	1.03	—	1.43	0.60	11.7	7	11	6	14	se.	John Adams.		
Mountainhome.	Elmore.	3,180	7	24.5	—	52	12	—	21	41	1.63	—	0.64	8.0	6	16	5	10	se.	Lee Highley.			
Murtaugh.	Twin Falls.	—	6	20.2*	—	47d	31	—	13	28	41d	2.14	—	0.66	20.0	8	14	8	9	n.	A. F. Allen.		
Musselshell.	Clearwater.	3,171	—																		J. E. Stelmour.		
New Meadows.	Adams.	3,950	8	18.6	—	44	14	—	9	21	41	2.00	—	1.10	—	0.27	11.8	8	14	8	9	P. Mitchell.	
Nezperce.	Lewis.	3,082	3	28.2	—	45	7†	7	20	26	1.23	—	0.51	23.0	8	12	13	6	n.	John Adams.			
Oakley.	Cassia.	4,700	19	26.4	—	3.0	49	11†	—	2	21	30	0.88	+ 0.32	0.35	10.0	3	20	5	6	J. D. Agnew.		
O'Hara Bar.	Idaho.	1,557	2																		Geo. Alteneder.		
Orofino.	Clearwater.	1,027	8	26.7	—	46	2	12	21	21	1.36	—	0.38	9.7	7	6	18	7	sw.	John Norton.			
Paris.	Bear Lake.	5,946	18	17.9	-2.6	39	14	—	8	24	28	0.39	—	0.68	0.11	8.2	4	8	17	6	E. F. Allen.		
Payette.	Canyon.	2,159	21	27.4	-3.4	47	17†	8	21	28	2.46	—	1.02	0.86	21.1	8	9	7	15	n.	David P. Clarke.		
Pierson.	Custer.	7,000	4	11.4	—	41	10†	—	21	17†	53	0.86	—	0.51	11.0	2	26	1	4	s.	Mrs. Jennie Potter.		
Pine.	Elmore.	4,100	3																	C. E. Friedrich.			
Pleasant Valley.	Ada.	3,000	5	26.2	—	51	11	—	3	21	35	2.01	—	0.63	19.6	8	15	3	13	se.	Lew Brundige.		
Pocatello.	Bannock.	4,483	13	28.7	-4.7	45	10	—	8	21	31	0.84	+ 0.02	0.48	5.9	8	7	8	16	se.	C. M. Lawrence.		
Pollock.	Idaho.	2,200	—	33.0	-2.9	51	14	—	12	20†	24	—									H. A. French.		
Poplar.	Bonner.	5,500	3	21.5	—	48	10	—	9	21	36	0.80	—	0.24	6.0	5	18	2	11	sw.	U. S. Forest Service.		
Porthill.	do.	2,500	1	27.5	—	36	15†	—	16	22	15	0.98	—	0.76	10.4	5	0	3	28	sw.			
Priest River Experimentation Station No. 1.	do.	2,500	1	26.7	—	49	27	16	22	22	0.91	—	0.71	9.7	5	0	3	28	ne.	Do.			
Priest River Experimentation Station No. 2.	do.	—	1	26.8	—	42	1	11	22	25	0.91	—	0.72	10.0	5	0	3	28	ne.	Do.			
Priest River Experimentation Station No. 3.	do.	—	1	26.8	—																		
Pyle Creek.	Boise.	8,100	3																		P. V. Smith.		
RattleSnake.	Elmore.	4,000	3																		Richard M. Green.		
Riofield.	Lincoln.	2,308	3	20.5*	—	44b	11†	—	12b	21	34b	1.53	—	3.17	—	0.68	19.0	6	12	12	7	Idaho Irrigation Co. J. S. Bussell.	
Rogerson.	Twin Falls.	—																			D. B. Hartwell.		
Roseworth.	Minidoka.	4,650	2																		Will Party.		
Rupert.	Boise.	4,204	6	21.2	—	43	11	—	15	21	34	1.88	—	0.72	18.5	8	12	7	12	sw.	Rev. Father Berthold, O. S. B.		
St. Michael's Priory.	Idaho.	3,811	—	20.2	—	46	7	12	21	21	0.76	—	0.26	6.9	5	11	5	15	sw.	E. K. Abbott.			
Salmon.	Lemhi.	4,040	7	19.8	—	41	1	—	5	21	34	0.32	—	0.10	3.8	4	17	8	6	n.	S. M. Moore.		
Sandpoint.	Bonner.	2,086	2	29.8	—	43	1	14	20	17	0.63	—	0.32	10.0	11	3	17	1	ne.	C. M. Gardner.			
Sheep Hill.	Boise.	5,000	3																	Zell Truman.			
Shoshone.	Lincoln.	3,968	5	22.6	—	41	11	—	7	21	29	1.31	—	0.62	10.5	6	6	21	4	ne.	Russel Stoddard.		
Silver City.	Owyhee.	6,280	—																	J. E. Minar.			
Soldier Creek.	Blaine.	5,755	2	21.1*	—	48*	10†	—	6	20	35	4.12	—	2.04	35.5	7					Mrs. W. A. Edwards.		
Springfield.	Bingham.	4,420	4	20.0	—	46	11	—	14	29	35	1.03	—	0.27	14.4	5	8	9	14	sw.	Ray G. Lyons.		
Spring Hill.	Ada.	3,607	—	27.4	—	45	11	—	7	20†	21	2.96	—	0.82	23.0	8	13	6	12	sw.	Utah-Idaho Sugar.		
Sugar.	Fremont.	4,892	5	19.2	—	43	12	—	15	21	37	1.49	—	0.58	21.0	6	18	3	10	n.	Col. M. W. Wood.		
Sunnyside.	Elmore.	3,500	3	30.6*	—	52*	11	—	5*	23	31*	0.68	—	0.80	2.81	2	12	11	8	se.	Mrs. Verna Paddock.		
Tripod Mountain.	Boise.	4,300	3																	J. A. Waters.			
Twin Falls.	Twin Falls.	3,825	7	22.8	—	49	15	—	10	21	32	1.77	—	0.75	16.0	7	12	11	8	se.	J. B. Howell.		
Upper Lost River.	Custer.	—																		A. M. Slattery.			
Vernon.	Framont.	5,050	14	20.4	-0.1	45	10	—	7	21†	35	0.17	—	1.38	0.10	6.0	3	13	9	9	ne.	J. W. Lapish.	
Weiser.	Washington.	2,114	1	30.6	—	48	11	—	10	20†	30	2.83	—	1.10	24.5	10	13	5	13	se.	Chas. L. Dingler.		
Wendell.	Gooding.	3,400	4	21.8	—	42	11†	—	6	20	29	2.26	—	0.56	26.0	6	17	5	9	n.	Wm. T. Chatterton.		
Weston.	Franklin.	4,480	14	23.0	-1.3	48	14	—	10	22	35	0.98	+ 0.40	0.28	11.0	6	18	1	12	sw.	D. Wm. Arrison.		
Whitebird.	Idaho.	3,000	—																				
<i>Washington.</i>																							
Aberdeen.	Chehalis.	162	22	41.4	+ 0.7	54	13	30	20	18	7.44	—	5.90	1.15	22	4	9	18	e.	H. A. Benham.			
Anacortes.	Skagit.	60	19	41.8*	—	57b	4	27	19	23b	1.38	—	2.44	0.55	0	6	13	8	0		Douglas Allmond.		
Anatone.	Astoria.	2,800	—	26.4	—	44	12	2	24	26	1.25	—	0.60	12.5	—	10	11	10	sw.	W. A. Hamilton.			
Antoine River Station.	Okanogan.	—		24.6*	—	44*	12†	—	4*	19	26*	—		0.90	T.	10	10	3	18		Mrs. R. H. Thompson.		
Baker.	Skagit.	390	7	37.0	—	48	7	26	21	33	3.80	—	3.55	1.30	—	0.35	17	7	14	10	sw.	Robt. M. White.	

TABLE 1.—Climatological data for December, 1913. District No. 12—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.			Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Washington—Contd.																				
Duckabush.	Jefferson.	380	4	38.2	+ 2.8	51	13	25	21	17	7.50	- 0.53	1.20	0	9	10	5	16	w.	
Ellensburg.	Kittitas.	1,571	25	30.8	+ 2.8	52	2	19	8†	28	0.88	- 0.53	0.30	13.0	6	2	2	27	r.	
Eltopia.	Franklin.	598	2	41.2	.....	54	14	25	20	19	8.27	.....	1.29	0	14	.....	.....	Frank O. Young.	
Forks.	Clallam.	480	3	41.2	.....	54	14	25	20	19	8.27	.....	1.29	0	14	.....	.....	Ruth Palmer.	
Fort Simcoe.	Yakima.	1,427	18	30.0	.....	42	12†	16	20	17	1.09	.....	0.81	9.5	4	8	14	9	Richard Newmark.
Gerome.	Stevens.	1,200	1	30.0	.....	42	12†	16	20	17	3.64	.....	1.82	3.0	3	.....	.....	W. W. King.	
Gost Lake.	Snohomish.	2,900	4	.....	.....	.....	.....	.....	.....	.....	0.77	.....	.....	9.0	6	2	21	8	C. M. Mackintosh.
Gold Basin.	.....	1,360	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Forest Service.	
Gold Creek.	Yakima.	2,600	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John W. Anderson.	
Gold Hill.	.....	4,454	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. J. Vasper.	
Goldendale.	Klickitat.	1,600	7	31.4	.....	48	17	9	24	23	1.76	- 0.83	0.40	13.0	9	3	9	19	w.
Granite Falls.	Snohomish.	397	10	.....	.....	.....	.....	.....	.....	.....	2.81	- 4.72	0.68	0	15	9	10	e.	
Guler.	Klickitat.	2,200	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30.4	.....	.....	.....	Frank Kuehnel.	
Hanford.	Benton.	385	.....	31.2	.....	48	17	18	8	29	0.76	.....	0.35	7.6	5	2	12	17	n.e.
Hutton.	Adams.	1,100	3	29.0	.....	46	2†	9	21	23	1.48	.....	0.40	9.0	7	7	5	19	sw.
Huntsville.	Columbia.	1,400	5	.....	.....	.....	.....	.....	.....	.....	1.75	.....	0.80	9.5	3	.....	.....	Mrs. S. J. Hill.	
Irene Mountain.	Okanogan.	2,700	4	.....	.....	.....	.....	.....	.....	.....	0.41	.....	0.30	6.8	5	4	5	22	ii.
Kennewick.	Benton.	368	13	31.8°	- 4.1	60	1	12	24†	31	1.28	+ 0.30	.....	5.9	.....	.....	.....	.....	R. E. Reed.
Kent.	King.	53	40.1	.....	.....	69	11	20	21	25	3.03	.....	0.59	0	13	0	9	22	s.
Kettle Falls.	Stevens.	1,265	4	30.0	.....	42	11	11	19	19	0.97	.....	0.60	11.0	4	3	11	17	.....
Kiona.	Benton.	430	7	33.2	.....	53	1	18	23	25	1.35	.....	0.35	7.5	7	5	3	23	Dr. F. S. Hedger.
Knowlton (near).	Okanogan.	3,800	28.1	.....	.....	48	1	12	20	28	.....	.....	23.2	.....	6	1	24	se.	
Kosmos.	Lewis.	775	7	40.5	.....	60	9	25	4†	33	1.80	.....	0.68	0.5	11	13	17	1	ne.
Le Center.	Clark.	250	16	35.8	- 3.1	51	13	21	4	25	4.32	- 3.45	1.10	1.2	18	3	16	12	se.	
Le Crosse.	Whitman.	1,400	4	30.2	.....	49	12	1	24	31	1.20	.....	0.34	10.5	8	9	4	18	e.
Lake Clealum.	Kittitas.	2,171	4	30.4	.....	48	1	18	23	15	1.48	.....	0.42	12.5	7	0	7	24	.....
Lake Kachess.	do.	2,235	5	30.1	.....	43	1	21	28	13	0.90	.....	0.31	12.0	11	4	3	24	U. S. Reclamation Service.
Lake Keechelus.	do.	2,479	5	30.2	.....	42	1	20	20	12	3.36	.....	0.62	33.5	8	0	9	22	e.
Lakeside.	Chelan.	1,116	22	31.7	+ 2.0	43	1	21	20	15	1.39	- 0.50	0.62	15.5	8	0	10	21	.....
Laurel.	Klickitat.	1,900	4	.....	.....	.....	.....	.....	.....	.....	4.18	.....	1.00	24.5	13	7	8	16	w.
Laurier.	Ferry.	1,644	3	28.8	.....	39	1†	13	23	15	0.79	.....	0.43	10.8	8	3	1	27	s.
Lone Tree.	Chelan.	9	44.0	.....	.....	56	12	34	20†	12	6.19	.....	0.80	0	21	3	15	13	e.
Longmires Springs.	Pierce.	2,800	2	33.4	.....	46†	13	19	21	17	.....	.....	.....	51	61	10	.....	.....	U. S. Engineer Corps.
Lost Creek.	Okanogan.	3,125	4	.....	.....	.....	.....	.....	.....	.....	0.55	.....	0.50	6.4	2	8	12	11	National Park Ranger.
Marietta.	Whatcom.	40.7	2	30.2	.....	56	13	22	20†	22	1.04	.....	0.27	0	8	11	8	12	P. H. Leese.
McConline.	Grant.	1,072	2	30.2	.....	43	13	14	23	21	1.44	.....	0.63	5.5	5	11	4	16	W. H. Van Meter.
McCubbers Ranch.	Yakima.	2,182	3	.....	.....	.....	.....	.....	.....	.....	2.35	.....	0.90	18.0	10	5	13	13	Mrs. Minnie E. Strout.
Moses Lake.	Grant.	1,070	2	.....	.....	.....	.....	.....	.....	.....	1.29	.....	0.63	4.8	3	3	0	28	Mrs. J. S. Myers.
Mottinger.	Benton.	307	13	32.8	- 4.3	53	1	17	24†	22	1.04	- 0.05	0.26	5.5	9	7	5	19	G. H. Mottinger.	
Mount Pleasant.	Clallam.	500	38.6	.....	.....	55	10	26	21	20	1.30	.....	0.50	0	6	0	24	H. M. Flemming.	
Newport.	Yakima.	1,000	21	31.9	+ 0.8	54	1	15	28	30	0.67	- 0.35	0.25	6.7	7	6	1	24	E. H. Bullard.	
Nighthawk.	Pend Oreille.	2,400	3	28.4	.....	42	29	13	20	21	0.81	.....	0.52	7.0	5	6	6	19	Chas. M. Talmadge.
North Head.	Okanogan.	8,050	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.8	.....	.....	.....	Steve Nagy.	
Northport.	Pacific.	211	11	45.1	+ 0.8	56	10	36	24	11	6.26	- 1.23	1.12	0	20	4	4	23	U. S. Weather Bureau.	
North Sundale.	Stevens.	1,350	14	29.9	+ 1.9	43	13†	17	19	23	0.76	- 1.33	0.31	10.7	5	20	11	w.	W. F. Case.	
North Yakima.	Klickitat.	4	31.6	.....	.....	53	1	11	23	24	1.70	.....	0.46	9.2	8	2	4	25	Ruth J. Shepard.
Odessa.	Lincoln.	1,540	10	31.6	.....	44	12	4	24	29	1.55	.....	0.37	9.2	9	7	13	11	Albert Bender.
Olga.	San Juan.	50	23	43.2	+ 1.8	55	10	31	20	18	1.46	.....	0.68	8.7	9	7	11	11	H. W. Rieke.
Olympia.	Thurston.	45	35	41.2	+ 0.4	57	13	25	21	23	3.61	.....	0.68	8.7	9	7	11	11	Cecil S. Willis.
Omak.	Okanagan.	850	4	30.8	.....	43	1†	15	20	20	1.31	.....	1.10	6.8	4	9	1	21	Saint John Umbrata.
Oroville.	do.	922	3	32.2	.....	41	2†	20	23	16	0.47	.....	0.19	5.4	7	8	9	14	M. C. Jackman.
Peela.	Garfield.	4,000	4	.....	.....	.....	.....	.....	.....	.....	0.60	.....	0.33	6.5	7	19	4	8	Samuel Gruell, sr.
Pomeroy.	do.	1,860	21	29.6	- 5.5	49	14	7	21	19	1.44	- 0.64	0.50	12.5	5	3	11	17	Peter McClung.	
Port Crescent.	Clallam.	259	18	39.8	+ 1.5	50	27	28	24	16	1.77	- 5.11	0.67	0	18	0	10	21	U. S. Weather Bureau.	
Port Townsend.	Jefferson.	80	23	42.1	+ 0.9	57	7	33	9†	17	1.44	- 1.18	0.49	0	10	5	7	19	Frank Plummer.	
Prosser.	Benton.	661	32.1	.....	.....	53	1	19	23	27	1.14	.....	0.46	8.0	5	14	12	w.	E. L. Capps.
Pullman.	Whitman.	2,550	21	30.1	- 1.9	48	11	15†	22	18†	1.24	- 1.42	0.40	8.0	5	8	12	11	State Agricultural College.	
Quinault.	Chehalis.	300	6	42.8	55	9	28	20	23	11.56	2.00	0	22	7	19	5	ne.	C. A. Bullard.
Reardon.	Lincoln.	2,510	13	27.5	- 1.3	44	14	8	21	19	1.35	- 1.02	0.68	12.3	7	4	20	30	A. V. Higley.	
Republic.	Ferry.	2,628	13	27.5	.....	53	1	19	23	17	1.00	- 0.68	0.30	10.0	6	1	0	30	Chas. Shoemaker.
Rex Creek.	Chelan.	1,135	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Geo. B. Stocking.	
Ritzville.	Adams.	1,825	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	James W. Nicol.	
Robertaville.	Klickitat.	1,910	7	30.2	.....	46	1†	11	24	23	2.02	.....	0.65	16.0	9	5	16	10	Agent N. P. R. R.
Rock Lake.	Whitman.	1,910	7	.....	.....	.....	.....	.....	.....	.....	1.32	.....	0.36	7.8	8	12	5	14	R. R. Cougar.
Rosalia.	do.	2,425	21	30.5	- 0.8	49	12	10	20	22	0.76	- 1.55	0.28	7.8	8	12	5	14	H. C. Melcher.	
Russell Ranch.	Yakima.	2,870	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Hans Mumm.	
Seattle.	King.	248	22	42.4	+ 1.2	55	12	28	21	18	2.61	- 3.43	0.64	T.	12	1	11	19	se.	Mrs. Adella Russell.
Sedro Woolley.	Skagit.	38	41.1	+ 1.1	59	7	22	20	20	23	2.34	- 3.45	0.76	0	10	10	10	11	U. S. Weather Bureau.	
Sixprome.	Klickitat.	1,240	5	30.8	.....	50	1	11	23	20	1.03	.....	0.38	4.5	6	2	5	28	Mrs. H. L. Devin.
Skratig Power Dam.	Whatcom.	510	37.6	.....	.....													

TABLE 1.—Climatological data for December, 1913. District No. 12—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.			
<i>Washington—Contd.</i>																					
Walla Walla.....	Walla Walla.....	1,000	29	31.6	-4.4	52	31	17	21	24	0.99	-1.11	0.27	8.3	9	3	0	28	s.	U. S. Weather Bureau.	
Washougal (near).....	Skamania.....	660	13	37.7	-1.8	57	8	24	24	22	5.20	-2.22	2.0	13	4	14	e.	F. M. Grout.			
Waterville.....	Douglas.....	2,624	23																	O. R. Hopewell.	
Wenatchee.....	Chelan.....	639		40.2		61	6	21	23	30	1.00		0.47	9.5	6	14	7	10	n.	A. A. Piper.	
Wenatchee (near).....	do.....	1,169	14	28.4	0.0	46	1	18	20	19	1.47	-0.59	0.37	14.5	10	2	7	22	e.	Geo. A. Pitcher.	
White Salmon.....	Klickitat.....	325	2	35.1		52	1	21	24	17	2.60	-0.86	0.68	20.8	18	3	6	22	e.	C. W. J. Beckers.	
Willbur.....	Lincoln.....	2,203	14	27.6	+0.2	42	12	3	31	36	0.93	-0.86	0.60	8.5	5	5	7	19	e.	R. J. Reeves.	
Wind River.....	Skamania.....	1,300	2	35.6 ^d		53 ^d	15	20 ^d	29	20 ^d	6.57		1.35	38.5	10	5	7	19	e.	U. S. Forest Service.	
Winthrop.....	Okanogan.....	1,765	2	24.6		40	1	0	25	19			0.60	12.7	10	5	7	19	e.	Methow Trading Co.	
Yacolt.....	Clark.....	850									7.18		1.22	5.0	12	9	6	16	e.	C. R. Miller.	
Yale.....	Cowlitz.....	375	6	40.6		55	13	30	4	19	6.23		1.28	4.0	17	9	4	18	sw.	J. A. Williams.	
<i>Oregon.</i>																					
Agency Plains.....	Crook.....	2,363		45.0		42	11	2	26	34	1.44		0.43	14.5	9	15	4	12	ne.	W. S. Williams.	
Albany.....	Linn.....	212	31	39.4	-1.9	57	14	26	6	32	3.00	-4.27	1.11	0	17				nw.	F. M. French.	
Ashland.....	Jackson.....	1,956	29	38.2	-1.2	61	10	20	4	32	2.49	-0.76	1.20	1.2	10	14	9	8	e.	Louis Dodge.	
Astoria.....	Clatsop.....	16	52	43.4	-0.5	54	11	33	23	16	7.96	-4.59	1.11	0	21	5	9	17	e.	Irving Club.	
Austin.....	Grant.....	4,250	2	23.3 ^d		55 ^d	15	6	24	47 ^d	1.80		0.52	20.0	6	10	2	13	e.	U. S. Forest Service.	
Baker.....	Baker.....	3,466	22	27.1	-0.3	45	11	5	21	23	1.10	-0.43	0.28	14.7	10	13	6	12	e.	U. S. Weather Bureau.	
Bend.....	Crook.....	3,829	8	29.2	-3.0	52	8	8	19	40	1.90	+0.01	1.15	11.4	7	17	6	8	s.	Bend Bulletin.	
Black Butte.....	Lane.....	1,200	12	35.6	-3.3	46	15	24	10 ^d	19	4.50	-2.14	0.90	10.0	5	3	9	7	nw.	William Harris.	
Blalock.....	Gilliam.....	237	15	33.2 ^d	-4.0	53 ^d	1	15 ^d	23	18	2.04	+0.42	1.27	9.0	5	3	17	10	e.	George W. Long.	
Brookings.....	Curry.....	130		47.7		65	9	34	4	27	10.05		2.00	0	21	8	13	10	se.	Dr. C. E. Saunders.	
Burns.....	Harney.....	4,157	23	26.5	+0.9	52	1	1	25	38	0.25	+0.88	0.54	29.0	5	14	8	9	e.	J. C. Welcome, Jr.	
Cascade Locks.....	Hood River.....	100	23	36.1	-2.4	50	1	24	24	14	4.16	-8.39	0.87	13.50	12	11	0	20	e.	Val W. Tomkins.	
Cazadero.....	Clackamas.....	503	4	40.7		58	11	23	10	28	2.21		0.98	0	15	7	6	18	se.	Alf Drill.	
Centralpoint.....	Jackson.....	37.4		64	12	20	16	34	1.90				0.78	0	7	5	11	se.	A. C. Fiero.		
Chiloquin.....	Klamath.....	4,200		27.0		50	10	6	18	3.35			0.90	19.2	12	9	8	16	sw.	H. W. Hincks.	
Clear Lake.....	Linn.....	3,030	29	2.2		41	14	12	20	20	4.67		1.38	29.0	15	14	6	11	se.	R. B. Grondahl.	
Clif.....	Lake.....	4,300	6	30.2		72	7	6	18	60	0.85		0.35	11.0	7	8	13	10	n.	John C. Green.	
Combs Flat.....	Crook.....	4,027																	n.	J. R. Breeze.	
Condon.....	Gilliam.....	2,884	6	26.3		47	14	7	24	24	0.75		0.20	11.0	7	8	1	22	e.	C. F. Kennedy.	
Covallis.....	Benton.....	265	25	40.8	-0.2	57	11	26	20 ^d	19	3.77	-3.71	0.63	14.5	7	10	18	3	s.	Oregon Agr. College.	
Crescent.....	Klamath.....	4,400	2	27.7		60	12	5	4	63	1.81		0.60	14.5	7	10	18	3	sw.	W. W. Cryder.	
Culver.....	Crook.....			25.5		49	17	2	24	40	1.12		0.48	8.0	6	18	2	11	e.	O. C. Young.	
Dayville.....	Grant.....	2,200	19	33.2	-3.5	62	10	9	21 ^d	39	1.35	+0.05	0.99	5.0	13	4	14	14	se.	J. Campbell-Martin.	
Deadwood.....	Lane.....	350	11	42.3 ^a		56 ^a	11	30 ^d	20 ^d	27	7.82		1.51	16	11	8	12	12	e.	Supt. Salmon Hatchery.	
Doraville.....	Columbia.....	600	11	39.1	+0.2	53	10	21	20	21	3.51	-4.23	0.83	3.7	20	6	7	18	se.	Joseph Hackenberg.	
Drain.....	Douglas.....	300	11	41.2	-0.8	59	11 ^d	27	20	23	4.80	-2.33	1.06	6.60	4	6	5	20	nw.	Ira Wimberly.	
Echo.....	Umatilla.....	625	9	31.6		53	1	10	23	27	1.00		0.65	4.5	4	6	5	20	e.	R. B. Stanfield.	
Ella.....	Morrow.....	830	9	31.2		42	8	3	23	31	0.82	-0.29	0.26	10.0	5	14	0	17	e.	Carl F. Troedson.	
Follyfarm.....	Lane.....	449	23	42.0	+0.4	62	25	20	20 ^d	24	2.77	-3.54	1.06	0.03	13	1	4	26	e.	Paul G. Bond.	
Gardiner.....	Malheur.....	3,710		51	14								0.08	1.8	3	17	4	10	sw.	W. R. Gardner.	
Glassbuttes.....	Douglas.....	72	24																e.	William S. Angus.	
Glandale.....	Crook.....	4,200																	e.	C. J. Stauffer.	
Glenora.....	Douglas.....	1,441	9	41.0		63	14	27	5 ^d	32	5.38		1.70	T	13	8	7	18	sw.	Carl Olson.	
Grandview.....	Tillamook.....	675	22	36.6	-2.3	50	11	25	4	17	7.33	-14.55	1.65	3.0	13	7	5	18	n.	Mrs. J. A. Reacher.	
Grants Pass.....	Crook.....			26.8		46	1	2	23	29					14	7	5	18	sw.	R. E. Osborn.	
Grass Valley.....	Josephine.....	956	25	40.4	+0.6	77	10	27	31	45	4.81	-0.73	1.49	0	15	1	6	24	e.	R. E. Paddock.	
Gurdane.....	Sherman.....	2,381	12	28.4		51 ^a	11	2	24	27	1.61		0.65	11.0	5	1	2	28	e.	Agent O. W. R. & N. Co.	
Headworks.....	Umatilla.....	3,500	4	30.8		54	14	11	20	28	0.08		0.04	2.0	5	14	12	5	s.	Miss Belle Ely.	
Heppner.....	Morrow.....	719	11	37.8	-1.2	52	10	26	4	19	5.76	-4.31	1.22	8.0	17	19	3	9	e.	Portland Water Works.	
Hermiston.....	Umatilla.....	1,950	23	31.1	-4.4	57	11	9	24	34	0.84	-0.85	0.19	5.5	7	5	8	18	n.	Frank Gilliam.	
Hillcrest Orchard.....	Jackson.....	1,595				52	1	6	26	26	1.13		0.42	6.5	7	4	4	23	sw.	C. W. Kallogg.	
Hollywood Orchard.....	Hood River.....	1,400																	e.	R. H. Parsons.	
Hood River.....	Hood River.....	300	23	34.2	-1.1	55	1	12	24	20	1.54	-5.67	0.78	16.5	7	3	5	23	e.	A. C. Allen.	
Hood River No. 2.....	do.....	485	1	34.9		52	1	21	23	15	2.32		0.78	17.2	13	2	5	24	e.	Edward W. Birge.	
Hood River No. 3.....	do.....	620	1	34.2		55	1	13	24	24	1.97		0.61	15.5	9	2	9	20	e.	C. C. Starring.	
Hood River No. 4.....	do.....	880	1	32.0		50	1	10	23 ^d	21	2.13		0.87	15.0	10	4	4	23	e.	U. A. Newman.	
Huntington.....	Baker.....	2,165	12	28.5	-3.2	47	17	11	8	34	1.76	+0.30	0.67	18.5	7	9	6	16	sw.	P. L. Smith.	
Imperial.....	Crook.....			25.8		59	6	7	27	48	1.06		0.21	15.5	9	16	2	13	sw.	F. S. Bubb.	
Jacksonville.....	Jackson.....	1,640	27.0	-0.8	61	10	20	6	28	2.50	-2.18	0.81	T	11	5	5	5	sw.	Claude Cone.		
Joseph.....	Linn.....	4,400	24	25.3	-0.3	48	7	1	23	33	0.80	-0.81	0.40	8.0	2	16	2	13	e.	E. Britt.	
Klamath Falls.....	Klamath.....	4,100	24	30.6	-1.8	51	10	12	23	28	3.16	+1.30	1.50	12.5	9	9	12	10	s.	F. F. McCully.	
La Grande.....	Union.....	2,784	25	32.4	+0.8	52	11	11	20 ^d	27	0.85	-1.21	0.25	7.5	5	18	3	10	e.	Augusta J. Hayden.	
Laidlaw.....	Crook.....	3,171																	e.	W. A. Benham.	
Lakeview.....	Lake.....	4,950	30	32.2	+0.2	51	7	9	27	33	1.85	-0.56	0.68	16.6	8	10	6	15	s.	J. W. Brown.</td	

TABLE 1.—*Climatological data for December, 1913. District No. 12—Continued.*

Stations.	Counties.	Elevation, feet	Length of record, years	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmetted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Oregon—Continued.																				
Range.	Grant.	3,500	5	28.0	.....	53	11	4	21†	33	1.10	.....	0.60	6.0	4	16	7	8	n.
Redmond.	Crook.	2,980	2	27.5	.....	51	11†	4	23	33	1.22	.....	0.50	12.2	5	15	6	10	nw.
Richland.	Baker.	2,350	12	28.8	+ 0.7	52	11	8	21†	32	1.50	.....	0.70	11.0	5	14	5	12	e.
Riddle.	Douglas.	715	.....	42.1	.....	65	12	29	10	30	2.42	.....	0.81	0	13	4	4	23	s.
Rio Hermoso.	Crook.	2,110	2	.....	.....	48	31	- 10	24	28	3.10	+ 1.78	1.20	30.0	7	15	3	13	e.
Riverside.	Malheur.	3,200	14	22.7	- 4.1	48	31	- 10	24	28	3.10	+ 1.78	1.20	30.0	7	15	3	13	sw.	
Robbyville.	Crook.	4,000	3	28.3	.....	53	4	5	19†	45	0.86	.....	0.50	0.4	2	25	4	2	s.
Roseburg.	Douglas.	510	35	41.5	- 0.4	59	11	30	23	22	2.36	3.56	0.85	0	13	0	20	11	s.
Salem.	Marion.	120	23	38.3	- 3.6	51	11	30	20†	10	3.39	- 2.56	0.77	0	17	0	0	31	nw.	
Seneca.	Grant.	4,800	2	.....	.....	48	12	23	16†	38	2.57	.....	0.88	12	3	8	2	20	nw.
Silver Lake.	Lake.	4,700	16	29.4	- 0.4	58	13	4	9	39	1.32	+ 0.20	0.90	1.5	4	13	16	2	sw.	
Siskiyou.	Jackson.	4,115	5	34.4	.....	51	10	20	18	17	7.27	.....	1.95	37.5	14	12	6	13	w.
Sparta.	Baker.	4,150	22	27.2	- 0.1	48	13	8	21	30	3.20	- 0.46	1.00	36.0	9	13	11	7	w.	
Stafford.	Clackamas.	400	17	40.3	- 0.4	62	13	26	9	25	4.01	- 3.24	1.03	0	17	.....	.....	ne.	
Tablerock.	Jackson.	1,215	.....	38.4	.....	68	12	23	16†	38	2.57	.....	0.88	12	3	8	20	24	nw.
Talent.	do.	1,800	.....	36.0	.....	63	10	21	16	28	1.95	.....	1.01	0.5	8	6	1	24	nw.
The Dalles.	Wasco.	112	39	34.4	- 1.5	55	1	20	24	20	1.72	- 1.14	0.70	17.2	8	5	3	23	e.	
Tillamook.	Tillamook.	20	44.7	.....	.....	62	13	28	4	30	9.96	.....	1.91	0	20	10	9	12	e.
Toledo.	Lincoln.	75	23	42.5	- 1.9	58	1	30	27	24	9.11	- 1.26	1.50	0	14	12	11	8	e.	
Umatilla.	Umatilla.	340	25	32.4	- 2.4	50	1	12	26	22	0.90	- 0.19	0.20	0.7	8	6	1	24	e.	
Union.	Union.	2,787	2	31.8	.....	53	11	14	3	26	0.46	.....	0.11	3.5	6	13	10	8	se.
Vale.	Malheur.	2,242	21	25.8	- 3.5	47	1†	2	26	32	1.94	+ 0.73	0.67	17.0	7	17	2	12	ne.	
Van.	Harney.	3,500	2	.....	.....	48	12	29	4	27	5.39	.....	1.34	T.	12	16	2	13	e.
Vida.	Lane.	1,100	2	40.8	.....	65	12	29	4	27	5.39	.....	1.34	T.	12	16	2	13	sw.
Waldo.	Josephine.	1,900	3	.....	.....	49°	27	25°	16	17°	2.10	.....	0.65	3.5	9	0°	8°	8°	s.
Waldo Lake.	Lane.	5,494	30.9	46	9	12	23	23	3.30	.....	1.40	29.0	5	18	2	11	.....	sw.	
Wallace Orchard.	Polk.	170	4	40.5	.....	68	25	26	20	31	3.76	.....	0.83	0	16	1	21	9	.....
Wallowa.	Wallowa.	2,935	10	25.0	- 2.1	45	31	- 2	24	29	1.33	- 0.25	0.45	11.0	6	12	12	7	e.	
Warmic.	Wasco.	1,500	12	29.4	.....	48	1†	5	27	24	2.09	.....	0.53	21.0	5	2	5	24	e.
Warmspring.	Crook.	1,500	11	27.6	- 6.4	48	15	5	26	37	1.62	- 0.29	0.60	12.0	8	3	15	13	w.	
Wasco.	Sherman.	1,268	34.2	49	1	10	23	24	1.59	.....	0.41	14.0	8	7	7	17	17	e.	
Weston.	Umatilla.	1,800	21	31.2	- 2.8	55	11	11	20†	34	1.08	- 1.53	0.28	8.7	10	5	2	24	s.	
Whitaker.	Crook.	4,250	.....	.....	.....	5	26	.....	0.71	.....	0.52	8.0	4	12	11	8	se.		
Williams.	Josephine.	1,368	21	37.5	- 2.1	65	12	23	15	35	5.29	- 0.44	2.04	1.0	15	4	4	23	w.	
Yonma.	Klamath.	4,146	6	30.0	.....	55	10	3	9	50	3.29	.....	1.10	17.4	13	2	16	13	s.

*, †, ‡, etc., indicate respectively 1, 2, 3, etc., days missing from the record.

** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

† Also on other dates.

T. Precipitation is less than 0.01 inch rain or melted snow.

Mrs. Emma Arbuckle.
 T. G. Stevens.
 L. G. Morgan.
 P. A. Wilson.
 Carl T. Hubbard.
 Mrs. Leah Fairman.
 Loren B. Robb.
 U. S. Weather Bureau.
 Henry A. Hoffman.
 E. J. Southworth.
 G. W. Marvin.
 U. S. Weather Bureau.
 J. A. Wright.
 John P. Gage.
 Mrs. J. C. Pendleton.
 T. F. Smith.
 Judd S. Fish.
 Will Spalding.
 C. B. Croson.
 Mrs. H. T. Duncan.
 Robert Withycombe.
 H. P. Osborne.
 George Howe.
 W. H. Pendell.
 W. H. Witrock.
 J. S. Gold.
 Charles A. Park.
 L. Couch.
 A. J. Swift.
 George W. Robbins.
 J. R. Howell.
 M. A. Baker.
 Frank Percival.
 Francis J. Le Roy.
 Ward Rueck.

TABLE 2.—*Daily precipitation for December, 1913. District No. 12, Columbia Valley.*

TABLE 2.—*Daily precipitation for December, 1913. District No. 12—Continued.*

Stations.	Watershed.	Day of month.																													Total.				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Ideo—Continued.																																			
Mackay.	L. River Reg.																																	.25	0.26
Maled.	Maled.																																		
Meridian.	Boise.																																		
Mesa II.	Weiser.																																		
Middle Fork.	Clearwater.																																		
Milner.	Snake.																																		
Moore.	L. River Reg.																																		
Moscow.	Palouse.	T.																																	
Mountainshome.	Snake.																																		
Murtaugh II.	do.	.30																																	
Mussechall.	Clearwater.	.11																																	
New Meadows.	Salmon.	.02																																	
Nespero.	Clearwater.																																		
Oakley.	Snake.																																		
O'Hara Bar.	Clearwater.																																		
Orofino.	do.	T.																																	
Paris.	Bear.																																		
Payette.	Fayette.																																		
Pierson.	Salmon.																																		
Pine II.	Boise.																																		
Pleasant Valley.	do.	T.																																	
Pocatello.	Port Neuf.																																		
Poplar.	Snake.																																		
Porthill.	Kootenai.																																		
Priest River Experiment Station:																																			
No. 1.	Pend Oreille.																																		
No. 2.	do.	T.																																	
No. 3.	do.	T.																																	
Pyle Creek.	Fayette.																																		
Rattlesnake.	Boise.																																		
Richfield.	Big Wood.																																		
Rogerson.	Snake.																																		
Rupert.	do.	T.																																	
St. Michaels Priory.	Clearwater.	.03																																	
Salmon.	Salmon.																																		
Sandpoint.	Pend Oreille.																																		
Sheep Hill.	Boise.																																		
Shoshone.	Big Wood.																																		
Silver City.	Owyhee.																																		
Soldier Creek.	Big Wood.																																		
Springfield.	Snake.																																		
Spring Hill.	Boise.																																		
Sugar II.	Snake.	.03																																	
Sunnyside.	do.	T.																																	
Tripod Mountain.	Fayette.																																		
Twin Falls.	Snake.																																		
Upper Lost River.	L. River Reg.																																		
Vernon.																																			
Weiser.																																			
Wendell.	Big Wood.																																		
Weston.	Bear.																																		
Whitebird.	Salmon.																																		
<i>Washington.</i>																																			
Aberdeen.	Coast.	.10																																	
Anacortes.	Puget Sound.	.02																																	
Anatone.	Snake.																																		
Baker.	Puget Sound.																																		
Bellingham, near.		.03	.02	.03	.02	.10	.38																												
Blaine.		.02																																	
Blewett.	Wenatchee.																																		
Bremerton.	Puget Sound.																																		
Brewster.	Columbia.																																		
Buckley.	Puget Sound.																																		
Bumping Lake.	Yakima.																																		
Centralia.	Coast.	</td																																	

TABLE 2.—*Daily precipitation for December, 1913. District No. 12—Continued.*

Stations.	Watershed.	Day of month.																													Total.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Washington—Contd.</i>																																		
Kosmos.	Columbia.	.06																																1.80
La Center.	do.		.01	.01	.26																													4.32
La Crosse.	Palouse.																																	1.20
Lake Clealum.	Yakima.																																	1.48
Lake Kachess.	do.																																	0.90
Lake Keechelus.	do.																																	3.36
Lakeside.	Columbia.	.52																																1.39
Laurel.	do.																																	1.00
Laurier.	Kettle.																																	4.18
Long Tree.	Coast.	.06																																7.97
Longmire Springs.	Puget Sound.																																	6.19
Lost Creek.	Columbia.																																	0.55
Marlette.	Puget Sound.																																	1.04
McConville.	Columbia.																																	1.44
McCumber Ranch.	do.																																	2.35
Moss Lake.	do.																																	1.29
Mottinger.	do.																																	1.04
Mt. Pleasant.	Coast.																																	1.30
Moxee.	Yakima.																																	0.67
Newport.	Pend Oreille.																																	0.81
North Head.	North.	.08																																6.25
Northport.	Coast.																																	1.79
North Sundale.	Columbia.																																	1.04
North Yakima.	Yakima.																																	1.30
Odessa.	Columbia.																																	0.67
Olga.	Puget Sound.																																	0.81
Olympia.	do.	.05																																0.34
Omak.	Okanogan.																																	1.46
Orville.	Peolets.																																	0.60
Pomeroy.	do.																																	1.44
Port Crescent.	Coast.																																	0.47
Port Townsend.	Puget Sound.																																	1.77
Prosser.	Yakima.																																	0.49
Pullman.	Palouse.																																	1.14
Quetico River.	Coast.																																	2.02
Quinault.	Palouse.	.06																																1.56
Reardan.	Spokane.																																	1.35
Republic.	Kettle.																																	1.00
Rex Creek.	Columbia.																																	1.00
Ritzville.	do.																																	1.00
Robertsville.	Pulouse.																																	2.02
Rock Lake.	do.																																	1.32
Rosalia.	do.																																	0.76
Russells Ranch.	Yakima.																																	0.76
Seattle.	Puget Sound.																																	2.61
Sedro Woolley.	do.																																	2.34
Sixprong.	Columbia.																																	1.03
Skagit Power Dam.	Puget Sound.																																	3.10
Snohomish.	do.																																	2.64
Snoqualmie Falls.	T.																																	2.04
Snoqualmie Pass.	T.																																	2.04
Snyders Ranch.	Yakima.																																	1.17
South Bend.	Columbia.																																	1.55
Spokane.	T.																																	1.35
State University.	Puget Sound.																																	0.93
Stokes Ranch.	Columbia.																																	2.56
Sullivan Lake.	Pend Oreille.																																	1.17
Sunnyside.	Puget Sound.																																	0.19
Tacoma.	Yakima.																																	2.22
Tatoosh Island.	Coast.																																	3.00
Tieton Canyon.	Yakima.																																	6.05
Touchet.	Columbia.																																	0.91
Touchet Ridge.	do.																																	2.34
Trinidad.	do.																																	1.00
Vancouver.	do.																																	3.68
Vashon Island.	Puget Sound.																																	6.07
Wahluke.	Columbia.																																	1.17
Wallace.	Okanagan.																																	1.47
Walla Walla.	Columbia.																																	0.93
Washougal (near).	do.																																	5.20
Waterville.	do.																																	1.00
Wenatchee.	do.																																	

TABLE 2.—*Daily precipitation for December, 1913. District No. 12—Continued.*

TABLE 2.—*Daily precipitation for December, 1913. District No. 12—Continued.*

Stations.	Watershed.	Day of month.																													Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Oregon—Continued.																																	
Ortley	Columbia																																
Owyhee	Owyhee	.09																															
Paisley	SE. drainage																																
Parkdale	Columbia	.03																															
Pendleton	Umatilla																																
Peninsula	Deschutes	.01	T.																														
Persist.	Rogue																																
Pilot Rock	Umatilla																																
Portland	Willamette																																
Port Orford	Coast																																
Post	Deschutes																																
Powell Butte	do																																
Power House	Columbia																																
Prairie City	John Day	.01	T.																														
Prineville	Deschutes																																
Prospect	Rogue																																
Rage Creek	Deschutes																																
Ramsey	Columbia	.05																															
Range	John Day																																
Ray Creek	Columbia																																
Redmond	Deschutes																																
Reston	Umpqua	.06																															
Richland	Snake																																
Riddle	Umpqua	.02																															
Riley	SE. drainage																																
Rio Hermoso	Deschutes																																
Riverdale	Malheur																																
Riverside	Deschutes																																
Robbville	Umpqua																																
Roseburg	Willamette	.01	.01																														
Salem	John Day																																
Sameca	SE. drainage																																
Silver Lake	do																																
Siskiyou	Rogue																																
Sisters	Deschutes																																
Sparta	Snake																																
Stafford	Willamette	.01																															
Starkey	Gr'de Ronde																																
Summit	Willamette	.04																															
Susanyville	John Day	.05																															
Tablerock	Rogue		T.	T.	T.	T.	.02																										
Talent	Columbia																																
Tamarack	John Day																																
The Dalles	Columbia																																
Tillamook	Coast	.01																															
Toledo	do																																
Trail	Rogue	.36																															
Umatilla	Columbia																																
Union	Gr'de Ronde																																
Vale	Malheur																																
Valley Falls	SE. drainage																																
Van	Malheur																																
Vida	Willamette																																
Vistillas	Pitt																																
Waldo	do																																
Waldo Lake	Willamette																																
Wallace Orchard	do																																
Wallowa	Gr'de Ronde																																
Wamic	Deschutes																																
Warmspring	do																																
Wasco	Columbia																																
Welches	do																																
Weston	Walla Walla																																
Whitaker	Deschutes																																
Williams	Rogue	.08																															
Yonna	Int. drainage																																

* Precipitation included in that of the next measurement.

† Separate dates of falls not recorded.

|| Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—Maximum and minimum temperatures at selected stations for December, 1913. District No. 12, Columbia Valley.

Date.	Montana.				Afton, Wyo.	Idaho.														Vernon.		Weston.									
	Kalispell.		Missoula.			Boise.		Bonners Ferry.		Hotspring.		Lewiston.		Mackay.		New Meadows.		Pocatello.		Salmon.		Shoshone.		Vernon.							
	Max.	Min.	Max.	Min.		Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.						
1....	42	26	.....	.....	29	19	44	27	42	27	46	22	47	32	32	19	35	7	31	19	41	20	27	15	32	19	34	25	
2....	32	20	.....	.....	35	8	40	25	35	25	40	15	47	27	30	10	35	5	33	20	36	10	26	4	40	11	45	24	
3....	28	26	.....	.....	24	2	36	23	33	28	38	16	34	28	34	5	34	0	28	17	31	6	28	2	35	10	42	18	
4....	28	23	.....	.....	33	0	39	26	30	26	40	21	35	32	34	7	33	0	26	16	34	6	31	3	34	13	41	12	
5....	30	24	.....	.....	33	2	38	22	30	26	40	14	38	29	36	8	31	0	32	12	32	0	27	0	20	7	43	14	
6....	33	21	.....	.....	33	0	39	24	38	26	38	15	42	26	43	7	39	0	30	12	36	6	33	7	32	5	40	11	
7....	44	20	.....	.....	34	9	40	26	35	25	38	12	44	27	38	8	37	5	40	15	40	11	35	17	40	15	42	17	
8....	38	16	.....	.....	35	4	41	23	40	24	42	12	45	24	36	10	35	0	39	13	36	5	38	9	40	12	46	13	
9....	33	14	37	3	40	22	35	14	44	12	45	24	45	11	34	—	2	40	12	34	3	39	11	40	11	44	10		
10....	26	20	35	0	38	21	31	12	42	14	42	22	33	7	29	—	4	45	14	31	0	39	22	45	10	43	9		
11....	26	20	.....	.....	39	3	46	32	32	15	54	34	43	29	40	11	38	5	42	15	34	8	41	26	41	11	39	13	
12....	37	21	.....	.....	38	4	45	25	36	27	48	27	42	25	39	11	34	8	37	13	37	3	40	22	42	15	40	10	
13....	27	15	.....	.....	31	0	46	30	38	27	47	30	44	29	37	12	34	4	43	14	32	4	40	25	43	10	42	10	
14....	33	21	.....	.....	38	8	41	30	41	25	47	32	45	28	39	20	44	17	38	18	37	17	40	30	44	11	45	17	
15....	42	27	.....	.....	35	19	39	22	42	31	42	19	42	24	34	11	30	10	36	20	37	6	36	24	42	8	40	20	
16....	38	19	.....	.....	35	5	35	26	36	26	40	32	42	25	36	10	28	4	25	17	31	6	28	20	36	9	46	14	
17....	31	14	29	5	30	24	31	20	40	29	35	27	34	7	28	—	1	35	16	28	15	36	13	32	8	46	11		
18....	29	17	.....	.....	25	8	32	19	31	20	35	24	35	32	38	9	29	18	33	23	31	3	31	22	30	17	33	16	
19....	30	14	.....	.....	23	10	31	15	33	13	32	15	39	26	35	1	28	9	26	15	35	4	31	19	22	3	31	5	
20....	22	15	.....	.....	12	8	26	10	23	14	18	—	7	34	19	25	—	3	27	5	19	0	29	0	22	9	26	0	
21....	26	13	.....	.....	12	—	34	6	30	12	12	—	9	34	15	25	—	3	32	—	9	19	—	8	24	—	5	20	
22....	22	12	31	10	34	22	25	10	36	10	36	29	17	—	4	32	—	4	27	13	22	1	24	8	23	—	10		
23....	20	14	21	1	25	8	26	12	30	9	33	29	29	10	33	—	20	29	22	31	14	24	17	22	—	5	40		
24....	25	11	24	4	36	3	31	14	30	3	32	22	28	—	8	26	—	4	28	16	25	1	24	9	30	0	30	0	
25....	20	11	28	8	41	32	28	11	36	28	37	32	26	11	33	18	34	26	36	16	30	35	9	31	15	31	0		
26....	26	17	.....	.....	35	10	33	18	34	23	37	24	37	30	34	13	36	13	31	22	34	21	30	26	34	24	39	26	
27....	29	23	28	14	29	10	37	25	30	15	38	25	33	0	25	—	8	32	14	33	4	28	19	31	20	30	0		
28....	31	23	17	—	12	26	12	38	29	23	11	39	27	22	0	31	—	4	28	5	29	2	27	10	30	2	21	—	
29....	32	26	16	—	19	25	15	36	29	30	8	36	24	25	1	31	—	7	24	5	26	6	22	3	20	—	7	21	
30....	29	23	27	—	11	40	23	32	26	31	17	38	33	17	2	31	20	32	7	29	4	26	9	25	—	7	25		
31....	38	24	.....	.....	37	8	50	33	30	27	54	29	50	36	38	13	37	23	43	31	37	17	36	24	29	17	37	10	
Mns.	30.5	19.0	29.3	2.9	36.7	21.1	33.5	21.5	37.2	17.2	39.7	27.0	32.6	6.7	32.6	4.7	32.6	14.8	32.5	7.0	30.9	14.2	32.3	8.4	36.3	9.8			

Date.	Washington.														Odessa.		Port Crescent.		Seattle.		Sixprong.		Spokane.		Tacoma.		Tatoosh Island.	
	Aberdeen.		Blaine.		Colville.		Koemos.		Lakeside.		North Head.		North Yakima.		Odessa.		Port Crescent.		Seattle.		Sixprong.		Spokane.		Tacoma.		Tatoosh Island.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	49	42	50	42	37	29	50	32	43	28	51	42	52	26	38	27	47	37	50	41	50	32	37	28	42	35	48	44
2....	45	39	46	37	38	28	52	30	35	28	45	40	42	23	44	23	38	38	40	38	38	33	27	33	34	40	43	
3....	41	35	38	26	33	23	52	26	34	28	52	41	34	31	33	29	41	38	41	32	40	30	33	24	33	44	40	
4....	41	32	36	30	31	28	46	25	32	27	45	40	32	30	32	29	40	35	42	32	40	30	31	28	32	46	39	
5....	47	38	45	32	32	29	51	35	34	28	48	40	34	30	33	29	45	38	47	38	30	33	29	45	33	44	44	
6....	46	40	48	37	37	21	46	30	38	29	48	41	38	32	41	24	49	42	51	42	37	30	41	35	52	45		
7....	49	38	50	40	36	26	55	28	41	29	50	43	44	24	42	24	47	32	51	40	47	31	41	34	51	40		
8....	43	34	47	29	37	27	58	25	37	32	50	43	43	22	42	27	44	31	41	31	38	27	38	27	47	43		
9....	49	41	44	26	35	17	60	34	34	26	53	44	40	32	32	21	49	34	42	34	35	27	38	23	43	43		
10....	46	37	42	28	31	13	54	41	35	28	56</																	

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TABLE 3.—*Maximum and minimum temperatures at selected stations for December, 1913. District No. 12—Continued.*

Date.	Walla Walla, Wash.	Oregon.																						
		Ashland.		Baker.		Eugene.		Hermiston.		Marshfield.		Portland.		Port Orford.		Prineville.		Roseburg.		The Dalles.				
		Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.			
1.....	50	32	43	26	41	27	50	35	52	27	50	30	49	41	55	32	46	18	44	38	55	35	47	24
2.....	33	30	34	24	37	20	50	32	47	24	56	28	46	39	56	32	45	15	49	35	46	29	45	20
3.....	34	32	39	22	35	18	45	35	37	33	54	30	44	36	56	31	38	12	39	34	40	36	39	16
4.....	33	31	34	20	32	14	47	34	36	32	48	34	40	32	48	40	36	17	41	34	38	33	37	13
5.....	35	32	38	22	38	16	47	36	38	32	54	38	42	37	53	46	42	17	44	35	44	31	44	14
6.....	37	31	37	23	39	23	46	35	41	32	50	32	44	40	52	40	34	23	38	33	43	34	40	14
7.....	51	31	41	27	41	20	51	36	49	23	54	38	43	37	55	40	53	17	41	34	44	34	44	16
8.....	31	28	40	31	42	20	44	34	44	20	58	32	47	36	53	36	54	14	44	37	45	26	40	12
9.....	31	27	58	28	43	20	40	33	35	19	56	29	48	40	57	32	53	10	42	34	42	35	37	10
10.....	29	27	61	45	43	23	46	34	34	29	58	39	46	40	58	44	56	20	55	33	39	33	43	21
11.....	37	27	54	40	45	28	59	39	42	28	58	50	51	40	52	49	55	28	59	40	41	30	37	10
12.....	29	27	60	47	43	26	53	37	38	27	58	41	48	42	61	50	50	31	52	38	39	28	43	19
13.....	37	29	53	39	44	32	59	40	41	30	58	42	55	43	52	48	54	30	57	38	44	33	42	18
14.....	52	33	48	29	45	25	56	41	40	22	54	46	52	46	54	45	52	19	54	40	42	28	47	29
15.....	47	30	44	25	39	19	44	32	46	21	58	32	46	35	54	32	52	17	43	34	40	29	39	17
16.....	30	26	40	25	35	18	48	30	35	29	48	28	42	32	49	31	50	13	44	32	38	32	36	18
17.....	33	26	48	30	29	25	45	38	35	31	49	36	45	38	53	38	45	28	48	35	40	31	40	26
18.....	36	30	40	29	31	23	47	35	37	31	49	32	43	36	45	32	40	20	45	33	47	27	41	29
19.....	34	29	43	32	31	9	42	32	38	32	49	37	44	30	49	40	40	10	44	35	35	40	39	11
20.....	29	22	45	32	27	9	44	29	36	28	52	35	41	32	38	35	51	38	33	5	43	33	39	12
21.....	24	17	45	32	22	8	39	29	31	26	50	40	36	33	54	43	36	10	50	33	36	29	31	10
22.....	28	22	45	33	26	15	45	37	30	26	49	38	37	32	50	40	35	17	43	36	35	28	30	8
23.....	31	21	41	21	23	11	48	33	30	12	45	34	40	36	54	38	33	- 1	44	30	29	22	28	4
24.....	24	17	45	34	24	13	44	33	28	17	52	40	36	32	52	37	37	12	52	43	30	20	24	15
25.....	33	24	48	38	34	24	62	38	34	26	48	44	39	36	53	35	36	16	50	42	34	26	25	21
26.....	36	23	48	28	34	14	50	39	35	6	52	38	46	37	51	34	40	5	48	39	35	20	34	2
27.....	42	21	47	31	29	14	52	38	35	18	51	40	49	39	53	46	35	24	54	42	35	26	24	12
28.....	42	29	51	29	30	21	55	36	38	26	57	34	42	37	55	33	45	6	45	40	34	28	26	14
29.....	29	26	45	38	29	21	45	35	34	24	48	37	43	37	53	40	37	19	45	38	38	30	25	12
30.....	49	25	45	33	30	15	51	37	33	28	55	43	48	37	52	48	40	7	49	39	38	27	24	5
31.....	52	33	57	37	42	27	53	42	43	29	55	44	47	40	54	44	37	19	48	36	41	31	40	22
Means.....	36.1	27.0	45.6	30.7	34.9	19.3	48.6	35.3	37.8	26.4	52.7	36.8	44.3	37.1	53.0	39.2	43.4	16.1	46.8	36.2	39.5	29.4	36.2	15.3

*, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.

** Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.